

REMARKS

In the Office Action dated May 6, 2005, the Information Disclosure Statement filed May 22, 2002 was objected to; claim 16 was objected to; and claims 1-19 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 6,732,221 (Ban) in view of U.S. Patent No. 6,230,233 (Lofgren).

INFORMATION DISCLOSURE STATEMENT

In response to the objection to the Information Disclosure Statement, a supplemental Information Disclosure Statement is submitted herewith along with copies of the references indicated by the Examiner as missing from the previously submitted Information Disclosure Statement.

CLAIM OBJECTION

Claim 16 has been amended to address the objection.

REJECTION UNDER 35 U.S.C. § 103

It is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 1 over Ban and Lofgren for at least the following reason: no motivation or suggestion existed to combine the teachings of Ban and Lofgren. *See* M.P.E.P. § 2143 (8th ed., Rev. 2), at 2100-129.

The Office Action conceded that Ban fails to teach migrating the file to a dynamic region of the read/write storage medium if the file is a static file and migrating the file to a static region of the read/write storage medium if the file is a dynamic file. 5/6/2005 Office Action at 3. However, the Office Action incorrectly noted that the column 4 and 5 passages of Ban teach identifying whether a file on a read/write storage medium is a static file or a dynamic file. The passage at column 4, lines 12-53, cited by the Office Action refers to a solution for wear leveling in static and non-static areas such that the wear leveling is achieved “*without the need to recognize which areas are static.*” Ban, 4:15-16 (emphasis added). Ban specifically teaches that identifying a file as static or not is *not* desirable, with Ban’s emphasis being on reducing required system resources and achieving a simple algorithm (Ban, 6:28-32). In fact, Ban teaches a

technique in which a storage unit of a storage medium is selected (according to a specific order) to move to a free storage unit every predetermined number of write or erase cycles (*e.g.*, 1000 write or erase cycles). Ban, 4:41-48. Alternatively, a storage unit can be randomly selected to move to a free storage unit every predetermined number of write or erase cycles. Ban, 4:49-50. The selected storage unit is moved to a free unit, and the selected unit is then erased. Ban, 4:51-52. However, the selection of a storage unit to move is *not* based on whether a file is identified to be static or dynamic; instead, Ban teaches that a storage unit is selected to move to a free unit based on some specific order or random order. The technique taught by Ban relies upon the fact that this periodic moving of storage units results in high probability that static units will be moved to non-static units. Ban, 5:59-6:12. However, Ban teaches that having to recognize which areas are static and which areas are not is not needed and is in fact undesirable because of Ban's desire to use a simple algorithm that does not consume system resources. Thus, the cited passages in columns 4 and 5 of Ban have nothing to do with identifying whether a file on a read/write storage medium is a static file or a dynamic file for the purpose of migrating the file to a dynamic or static region. Thus, because of this mis-application of Ban to claim 1, the obviousness rejection is defective for at least this reason.

Moreover, there clearly existed no motivation or suggestion to combine the teachings of Ban and Lofgren to achieve the claimed invention. Lofgren teaches maintaining records 35 and 37 to count the number of writes to particular blocks. When usage of different banks of memory is uneven, data in a heavily used bank is swapped with data in a less heavily used bank. Lofgren, 5:18-26. Thus, Lofgren contemplates a technique that is inconsistent with the goal of Ban, which seeks to achieve a simple algorithm that selects storage units to move around on a storage medium based on some specific order or some random order every predetermined number (*e.g.*, 1000) of cycles. Ban seeks to reduce the amount of overhead involved in performing Ban's wear leveling technique. Modifying Ban based on the technique proposed by Lofgren would be counter to the objective of Ban, since Lofgren requires the maintenance of various structures, including records 35 and 37, to implement its bank swapping technique. Maintaining such structures would lead to *increased* use of system resources and overhead, and complication of the wear-leveling algorithm of Ban. Therefore, based on the teachings of Ban, a person of

ordinary skill in the art would not have been motivated to combine the teachings of Ban and Lofgren.

Additionally, it is noted that Lofgren teaches that entire banks are swapped (a heavily used bank with a lightly used bank). Lofgren really does not contemplate migrating *a file* to a dynamic or static region based on whether the *file* is a static file or a dynamic file. A person of ordinary skill in the art looking to the teachings of Lofgren would have been led to swapping entire banks of memory, not to migrating files based on determining whether the file is static or dynamic. This is a further reason that no motivation or suggestion existed to combine the teachings of Ban and Lofgren to achieve the claimed invention.

In view of the foregoing, a *prima facie* case of obviousness has not been established with respect to claim 1. A *prima facie* case of obviousness has similarly not been established with respect to independent claims 13 and 17. A minor amendment has been made to claim 13 that does not change the scope of claim 13.

Dependent claims, including newly added dependent claims 28-31, are allowable for at least the same reasons as corresponding independent claims.

Moreover, with respect to dependent claim 16, neither Ban nor Lofgren teaches or suggests a means for identifying a file type of the file, where the file is *initially* identified as static or dynamic *based on the file type* of the file. Claim 31, which depends from claim 16, further recites reclassifying the file from the *initial identification* of a static file or a dynamic file based on the number of rewrite cycles to the file. Such reclassification from the initial identification is not taught or suggested by either Ban or Lofgren.

Claims 28 and 29, which depend directly and indirectly from claim 1, respectively, are allowable for similar reasons as claims 16 and 31, respectively.

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In view of the foregoing, allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 08-2025 (200304388-1).

Respectfully submitted,

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